CALIFORNIA ASSOCIATION OF TRIBAL GOVERNMENTS

RECOMMENDATIONS TO THE FEDERAL COMMUNICATIONS COMMMISSION REGARING FILING NUMBER 09-51, NATIONAL BROADBAND PLAN, REGARDING A TRIBAL BROADBAND PLAN

DECEMBER 17, 2009

1. Introduction

2. In the American Recovery and Reinvestment Act of 2009 (Recovery Act), Congress directed the Commission, in its development of a National Broadband Plan, to include "a plan for the use of broadband infrastructure and services in advancing… community development…worker training, private sector investment, entrepreneurial activity, job creation and economic growth."[1] Nearly all federally recognized tribal governments business enterprises qualify as small businesses (defined for purposes of this Public Notice as businesses with 500 or fewer employees), with the exception of tribes with large gaming enterprises that number approximately 35, which operate in an economic environment of 50% to 80% unemployment on reservation and in remote, rural areas.[2] Broadband is the best hope for tribal governments to develop economic development opportunities that support all of the underlying building blocks of economic opportunity that are: education, health care, public safety and governance.

3. Although for many Americans, a world without broadband is unimaginable, for Native Americans and Alaska Natives and their tribal governments and anchor institutions, broadband deployment in Indian Country is at less than a 10 percent penetration rate while analog telephone reaches only one in three families in tribal communities[3]. If broadband internet is deployed to tribal governments as a trust asset that is the trust obligation of the federal government trustee to all of its trust beneficiaries, broadband internet holds the potential to transform the lives of tribes and tribal citizens as the foundation of a socio-economic revolution. The barriers to broadband deployment to tribal governments, tribal residences, tribal enterprises, tribal colleges and schools, tribal law enforcement and tribal courts, and tribal health clinics and hospitals must be brought down, otherwise tribes will be relegated to the dark side of the digital divide for at least another generation, and cause irreparable harm to the current and successive generations. Such failure, therefore, is not an option.

4. The country that today goes online with broadband internet for government, work, education, entertainment, healthcare, and public safety evidences the benefits that tribes would enjoy if provided if connected to broadband infrastructure. Broadband provides the opportunities to tribal governments and their anchor institutions to function more efficiently and effectively, and to immediately create the thousands of jobs desperately needed in tribal communities with historically high rates of unemployment (from 50% to 80%) and their rural regions that are disproportionately harmed by the current economic recession. Robust broadband services, at progressively higher bandwidths and lower latencies comparable to the rest of America, is a trust asset entitled to tribal governments and their anchor institutions, and is a fundamental part of any serious efforts to establish tribal governments' economic well-being, along with the programs that facilitate the adoption of this capability is an available opportunity for everyone in the tribal

[1] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001(k)(2)(D), 123 Stat. 115 (2009) (Recovery Act).

[2] Those with the vantage point of small, medium, or large businesses, non-profit organizations, or SDBs (*see* II.d.iii., *infra*), are welcome to comment on any of the avenues of inquiry in this Public Notice.

[3] According to data from the 2000 decennial census, about 69 percent of Native American households on tribal lands in the lower 48 states had telephone service, which was about 29 percentage points less than the national rate of about 98 percent, January 2006 GAO Report, Telecommunications, Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands.

community.

5. In January 2009, the Federal Communications Commission began developing the data and analysis to complete a Report.[4] Congress provided new direction and support for federal broadband policies and initiatives in the recently passed American Recovery and Reinvestment Act of 2009,[5] also known as the stimulus package, wherein Congress appropriated $7.2 billion for broadband grants, loans, and loan guarantees to be administered by the USDA's Rural Utilities Service (RUS) and the Department of Commerce's National Telecommunications and Information Administration (NTIA).[6] Significant flaws in the NTIA and RUS eligibility and evaluation criteria placed tribal applications at a disadvantage compared to non-tribal applications in the first round of three applications rounds. Unless the second and third rounds are revised to elevate tribal applications to even footing with non-tribal applications, then this funding initiative, though substantial, will again bypass the broadband needs of tribes, including those non-Indians residing in rural areas around tribal communities, given that tribes are often the largest economic engine in economically depressed rural areas.[7] The current prospect is that tribes will continue to lack access to critical broadband services even after the award of $7.2 billion by NTIA and RUS.

6. In February 2009, Congress enacted the Recovery Act (American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) ("Recovery Act"). The Recovery Act charged the Federal Communications Commission with developing a national broadband plan by February 17, 2010 to ensure that every American has access to broadband capability and establishing clear milestones for reaching this goal.[8] The Recovery Act is the next significant step in our nation's broadband goals since Congress enacted section 706 in 1996, which Section 706 directed the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to *all Americans*. [emphasis added]" 47 U.S.C. § 1302(a). The Recovery Act reshaped our national priorities with the national goal of ubiquitous broadband deployment. The Recovery Act directs the Commission, by February 17, 2010, to develop a plan that seeks to ensure that *all people* of the United States have access to broadband (National Broadband Plan). The Commission's establishment of benchmarks for meeting the national goal of ubiquitous broadband deployment, and its analysis of broadband deployment within certain parameters established by Congress, with drive the Commission's development of its plan. Tribal governments, tribal citizens and their tribal lands or areas are the beneficiaries of the federal government's trust obligation, as well as a moral obligation, to be included as "all Americans" and "all people of the United States" within the national priority to provide ubiquitous access to broadband.

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[4] For the purposes of the preparation of this Report, staff opened a special docket (GN Docket No. 09-29) and solicited comments from the public. *See Comment Date Established for Report on Rural Broadband Strategy*, GN Docket No. 09-29, Public Notice, 24 FCC Rcd 2987 (2009). See Appendix A for a list of commenters.

[5] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (Recovery Act). The Recovery Act was signed into law on February 17, 2009.

[6] Recovery Act, Division A, Title II, National Telecommunications and Information Administration (NTIA Appropriations); Recovery Act, Division A, Title I, Rural Utilities Service (RUS Appropriations).

[7] Reservation Revenues, Uncovering Economic Contributions of Montana's American Indian Tribes, by Eleanor YellowRobe, Montana Business Quarterly, Autumn 2007.

[8] Recovery Act § 6001(k).

7. Paragraph 56 of the *Section 706 Sixth Report NOI* requested comment on the meaning of the term "all Americans" as it relates to the reasonable and timely deployment of broadband capabilities. In the *Section 706 Fifth NOI*, the Commission sought comment regarding businesses, residential consumers, rural communities, elementary and secondary students, minority consumers, persons with disabilities, and individuals living on Tribal land and in the U.S. territories. The NOI sought "comment regarding whether these categories remain adequate for evaluating broadband deployment to "all Americans." Tribes must be a separate category because, as a matter of fact, tribes experience technology deployment as a different than the rest of America. For example, the availability of plain old telephone service ("POTS") on reservations remains less than 68% even after 50 years of the FCC's Universal Service Fund program. Broadband deployment also follows at a different pace that is far below that of other Americans, even compared to fellow Americans living within the same rural geographic area. Often, rural communities along the exterior boundaries of reservations have access to POTS, wireless telephone services and broadband, while tribal citizens within the boundaries of reservations do not.

8. The separate mandates from Congress are an unparalleled opportunity to ensure that the promise of universal access to broadband services is realized for tribal governments, their anchor institutions, and all Native Americans and Alaska Natives, who are, after all, the first Americans, whose tribal governments are due a trust obligation by their trustee. The challenge for tribes is to require coordination of the various responsibilities of the federal trustee among the federal agencies and other stakeholders with roles in achieving the nation's broadband goals. Tribes' must ensure, and the federal government must accept, that the National Broadband Plan, to be delivered to Congress by February 17, 2010, does not isolate tribes from broadband services. The Federal Communications Commission's broadband responsibilities must include, as a vital and integral step in the process of achieving the end result of a National Broadband Plan, affordable, value-laden broadband services for all tribes.

9. The recommendations herein are congruent to the broadband policy arising from the Federal Communications Commission's first step toward the national broadband plan, its recent *National Broadband Plan NOI*.[9] In that notice, the Commission recognized that bold action will be necessary for the nation to achieve its goal of ubiquitous and affordable broadband for all, regardless of location, socioeconomic status, ethnic background, or any other factor. The *National Broadband Plan NOI* recognized "the incredible value of ubiquitous broadband, and the difficulties that lie ahead in ensuring its availability."[10] In particular, tribes need to overcome many barriers to full access to broadband services. Success in overcoming these barriers will require the input from tribal governments through tribal consultation, which has not occurred as of this date, and cooperation of many different federal agencies and state, and local governments. Once broadband infrastructure is provided to tribal governments and their anchor institutions as a trust asset entitlement by their federal government trustee, then dynamic innovations will drive the adoption of broadband services through and the entrepreneurship of tribal enterprises and tribal citizens, and tribal government partnerships with private businesses, and that will ensure the sustainability of ubiquitous broadband access.

[9] *A National Broadband Plan for Our Future*, GN Docket No. 09-51, Notice of Inquiry, 24 FCC Rcd 4342 (2009) (*National Broadband Plan NOI*).

[10] *Id.* at para. 123.

10. A Tribal Broadband Plan is integral to the National Broadband Plan. Formal tribal consultation with tribes would have informed the record with the essential detail to fully understand the trust obligation to provide, the tribes' need for, and the benefits to be derived from, a Tribal Broadband Plan. Consultation is the necessary input of essential stakeholders required to confirm the steps the nation must take to fulfill its trust obligation for broadband as a trust asset of tribes. Unfortunately, a formal consultation did not take place in the lead-up to the publication of the National Broadband Plan. Nevertheless, input from a substantial array of stakeholders presents significant information about the needs of tribes for broadband as a trust asset, the means of deploying and utilizing broadband services, and measures to ensure adoption of broadband in tribal communities. Contributors included the National Congress of American Indians, the California Association of Tribal Governments, the Affiliated Tribes of Northwest Indians, the Great Plains Tribal Chairman's Association, the Southern California Tribal Chairman's Association, the Ewiiaapaayp Band of Kumeyaay Indians, and other tribes and inter-tribal governmental organizations and stakeholders. In addition, immediately following and within 180 days of the publication of the national broadband plan, a formal consultation protocol with the national and regional inter-tribal governmental organizations should occur that results in a compendium of information and report that will be used in the development of an updated and detailed version 2 of the Tribal Broadband Plan section of the National Broadband Plan. This immediate update would present recommendations for a tribal government broadband strategy and its implementation, which is necessary for ensuring deployment of broadband capability for all tribal governments and anchor tribal institutions that matches tribal needs and triggers immediate adoption of broadband services and job creation. The Tribal Broadband Plan version 2 is a critical step in the Commission's efforts to develop a ubiquitous, effective, efficient, and achievable Tribal Broadband Plan that is based on facts from the tribal experience as informed by tribes through consultation. A Tribal Broadband Plan strategy should be undertaken with due consideration to the tribal broadband infrastructure and the tribal citizens it must serve. The likely success of tribal initiatives is intimately linked to a sound tribal broadband policy that reflects the complex interdependencies of regulatory policies, economic issues, and technological innovations.

11. A key goal of the National Broadband Plan must be that all tribal governments, anchor tribal institutions, and tribal citizens, like other Americans, have the opportunity to reap the full benefits of broadband services. Certainly the challenges of deploying broadband to all tribes are daunting, but the alternative is unacceptable. Tribal students, because they don't have access to broadband internet at home or at school, are unable to compete in the digital global marketplace. Tribal governments cannot attract employers to locate on tribal lands without access to broadband services.[11] Tribal enterprises without access to broadband internet services cannot compete with comparable businesses. Tribal governments cannot electronically submit applications for NTIA or RUS broadband grants or loans without broadband connectivity, except, ironically, with the greatest difficulty through dial-up connections. Now is the time to include tribes in the digital, broadband economy.

12. Broadband solutions for tribes are not speculative or risky. The technologies and resources needed for deployment of broadband in tribal communities already exist, and, in fact, continue become exponentially faster and more powerful, while adoption of broadband services

[11] *See* H.R. REP. NO. 110-256, pt. 1, at 231 (2007) (stating that businesses "from banks, to automotive repair shops, to new age technology industries need broadband service to compete in the digital global marketplace").

has become off-the-shelf technology that is both efficient and economical. High-capacity fiber networks are not available for tribal government, tribal enterprise, and tribal residential use, and their performance continues to increase. Cable networks are being upgraded to a platform that will support data rates of up to 160 megabits per second (Mbps).[12] While issues remain, broadband over power lines (BPL) continues to emerge as a viable technology option.[13] Wireless technologies are extending broadband into areas unreachable by cables and wires, and enabling consumers to be connected while on the move. Many wireless Internet service providers (ISPs) have used the IEEE 802.11 wireless local area network technologies (commonly known as Wi-Fi) to offer fixed wireless broadband services in areas not reached by wireline technologies.[14] Wireless providers have been launching new broadband technologies that allow subscribers to access the Internet, while mobile, at speeds that are beginning to rival those on landline networks.[15] Further advancements on the wireless broadband front are expected as wireless service providers begin to build out networks using advanced technologies—such as Long Term Evolution (LTE) or Worldwide Interoperability for Microwave Access (WiMAX)—that support data rates that may exceed 100 Mbps.[16] Wireless broadband will be widely used in deploying broadband backbone spectrum to individual tribal residences, to off-site tribal government offices, to tribal enterprise offices, and to non-tribal businesses' satellite offices. Finally, satellite broadband, with its near ubiquitous coverage and downstream data rates between 512 kbps and 5 Mbps, can provide a much-needed connection in the most challenging

[12] DOCSIS (Data Over Cable Service Interface Specification) 3.0, which is capable of supporting downstream rates up to 160 Mbps or higher and upstream data rates of 120 Mbps, is being rolled out in cable systems across the country. *See* Press Release, CableLabs, CableLabs Issues DOCSIS 3.0 Specification Enabling 160 Mbps (Aug. 7, 2006), *available at* http://www.cablelabs.com/news/pr/2006/06_pr_docsis30_080706.html.

[13] *See Amendment of Part 15 Regarding New Requirements and Measurement Guidelines for Access Broadband over Power Line Systems; Carrier Current Systems, Including Broadband Over Power Line Systems*, ET Docket Nos. 04-37, 03-104, Report and Order, 19 FCC Rcd 21265, 21266, paras. 1–2 (2005). *But see* ARRL Comments at 3-6 (noting that there are obstacles to deployment of BPL systems that will need to be addressed, including interference with amateur radio and other licensed services).

[14] *See* WIRELESS BROADBAND ACCESS TASK FORCE, FCC, CONNECTED & ON THE GO 31–32 (2005), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-257247A1.pdf (WIRELESS BROADBAND ACCESS TASK FORCE REPORT).

[15] For example, some Code Division Multiple Access (CDMA) carriers have deployed 1xEV-DO (EV-DO) Revision A (Rev A) technology across their networks, which has average download speeds between 600 kilobits per second (kbps) and 1.4 Mbps, and average upload speeds between 350 and 800 kbps. In addition, the data rates offered by one mobile WiMAX service providers average between 2 and 4 Mbps downstream and between 500 kbps and 1.5 Mbps upstream. *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, WT Docket No. 08-27, Thirteenth Report, DA 09-54, paras. 134–52 (WTB rel. Jan. 16, 2009) (*Thirteenth CMRS Competition Report*); Sascha Segan, *Sprint Xohm (Mobile WiMax)*, PC MAGAZINE, Oct. 10, 2008, http://www.pcmag.com/article2/0,2817,2331483,00.asp.

[16] LTE can support up to 58 Mbps for upper link transmission and 173 Mbps for downlink transmission with 20 megahertz of spectrum and a 2x2 Multiple Input Multiple Output (MIMO) antenna structure. *See* RYSAVY RESEARCH AND 3G AMERICAS, EDGE, HSPA AND LTE—THE MOBILE BROADBAND ADVANTAGE 16 (Sept. 2007), *available at* http://www.3gamericas.com/pdfs/2007_Rysavy_091007.pdf. Initial versions of the mobile WiMAX technology can support peak downlink data rates up to 63 Mbps and peak upper link data rates up to 28 Mbps in a 10 MHz channel. *See Mobile WiMAX – Part I: A Technical Overview and Performance Evaluation, Mobile WiMAX Forum, August 2006*, at 10, *available at* http://www.wimaxforum.org/technology/downloads/Mobile_WiMAX_Part1_Overview_and_Performance.pdf (last visited May 19, 2009).

areas, such as Alaska Native villages in interior Alaska where other broadband solutions are not viable for technical and economic reasons.[17]

13. Tribal broadband technologies must support state-of-the-art, secure, and resilient broadband service, which is same standard and goal of the National Broadband Plan for the non-tribal communities of the nation.[18] These networks must be designed and configured on the principles of durability, reliability, openness,[19] scalability, and interoperability so that they can evolve over time to keep pace with the growing array of transformational applications and services that are increasingly available to consumers and businesses in other parts of the country and the world.

14. These recommendations are intended to facilitate the rapid and widespread build-out of state-of-the-art broadband access facilities to every tribal government and tribal anchor institution, to every tribal enterprise, and to every tribal residence. Most Native Americans and Alaska Natives live in third-world conditions that have improved little over many years and the terms of many Presidents and many sessions of Congress. The transformation available through the ubiquitous deployment of broadband to tribes cannot be underestimated. If you live in a cave, and build a wide road to it, you still live in a cave. If you are given electricity, you live in a well lighted cave. If you are provided health care, you are kept alive in a cave. But if you are have broadband and the means to use it, you are connected to the world. The potential transformative power of broadband to change the socio-economic conditions of tribal communities is unrivaled in the history of America. Broadband technology, and the ability to be connected, can be an important part of empowering tribes. Native American and Alaskan Native children will be connected to educational services on par with other Americans whether in school or in their home, patients in a tribal clinics and hospitals will be examined by a specialists located in an urban hospital, businesses located on tribal lands will no longer be competitively disadvantaged by the absence of broadband access. Thus, deploying ubiquitous broadband as a trust asset to tribal governments and tribal anchor institutions, with connections from these hubs to tribal residences and enterprises, will immediately create jobs and seed economic growth and opportunity for tribes.

I. RECOMMENDATIONS

15. We submit the following recommendations:

♦ ***Coordination of Tribal Broadband Efforts.*** Increasing coordination—among federal agencies; Tribal, state, and local governments; and community groups and individuals—is a critical preliminary step towards ensuring that the federal trustee accomplish its tribal broadband goals and objectives in an efficient and effective way.

[17] There are currently three licensed satellite operators providing satellite-based broadband Internet access services. *See* HughesNet, High Speed Internet Service Plans and Pricing, http://go.gethughesnet.com/plans.cfm (last visited April 13, 2009) (showing list of HughesNet service packages ranging from 1-5 Mbps downstream and 128-300 kbps upstream); WildBlue Communications, Detailed Package Comparison Chart, http://www.wildblue.com/getWildblue/details.jsp (last visited May 19, 2009) (showing list of WildBlue service packages ranging from 512 kbps-1.5 Mbps downstream and 128-256 kbps upstream); Starband Inc., New Starband Nova Series, http://starband.com/services/ (last visited April 13, 2009).

[18] *See, e.g.*, CFA/CU Comments at 2.

[19] *See infra* Part VI.B (Network Openness).

16. Improving Federal Agency Coordination.

17. The tribal-federal working group should be formed by the Obama administration to coordinate the administration's broadband agenda and its ongoing efforts to enhance interagency coordination of tribal broadband initiatives; and

18. The federal agencies should each develop their own "tribal broadband agendas" consistent with the Tribal Broadband Plan within the National Broadband Plan.

19. Other Coordination Efforts.

20. **Tribal Coordination.** To ensure a truly comprehensive strategy for addressing rural broadband deployment and adoption, it is important to maintain a continuing dialogue to address the unique issues presented in Tribal areas. As an integral part of their tribal broadband initiatives:

21. (1) Federal agencies should consider how to maximize existing programs to improve coordination with Tribal governments; and

22. (2) The Commission should consult with Tribal governments pursuant to its *Tribal Policy Statement* in developing and implementing its National Broadband Plan and, in particular, in developing the aspects of that plan that affect broadband deployment and adoption specifically for tribal governments and anchor tribal institutions.

23. **Commission Coordination.** The Federal Communications Commission should establish a Tribal Affairs Bureau and emphasize coordination of the Tribal Broadband Plan with its FCC bureau counterparts to take advantage of existing coordination mechanisms. The Tribal Affairs Bureau should:

24. (1) Be appropriated an annual budget to fund its operations and contracts, including an additional budget for the Indian Telecommunications Initiative (ITI);

25. (2) Provide the Commission with its own recommendations for improving federal-tribal coordination, deployment and adoption regarding tribal broadband;

26. (3) Include in its recommendations proposals for federal-tribal coordination to address and ameliorate the unique challenges to tribes; and

27. (4) Compile an inventory of successful tribal broadband projects and "best practices."

28. (5) Complete a digital inventory of all tribal lands for broadband deployment.

29. (6) To ensure that broadband deployment activities do not take diminish, and in fact renew, actions and funding needed to provide "plain old telephone service" (POTS) for the 33% of tribal citizens with it, or 911 service for all tribal citizens, including reform of the Universal Service Fund and the eligible telecommunications carrier (ETC) designation process on tribal lands to make these better address these needs and conform to tribes' recommendations.

30. **Coordination with Federal Agencies.** In order to be successful in coordinating existing federal programs concerning tribal broadband and its deployment and adoption

initiatives, it is critical that the various federal government agencies that overlap or impact tribal broadband, such as the Federal Communications Commission, Department of Interior (Bureau of Indian Affairs, Bureau of Indian Education), Department of Health and Human Services (Indian Health Service, Department of Agriculture (Rural Utility Service), Department of Education, Department of Commerce (NTIA), Department of Energy, Department of Justice, Department of Homeland Security, Department of Treasury, Office of Management and Budget, all collaborate and coordinate with tribes and their advocacy organizations. Federal agencies should work closely with tribes:

31. (1) To help ensure that all tribal governments and tribal anchor institutions are deployed robust broadband services as a trust asset and that tribes participate fully in the build-out of broadband infrastructure in tribal communities.

32. (2) To help ensure that all tribal citizens have affordable access to broadband services capable of supporting the full array of applications responsive to their needs.

33. (3) That serve low-income tribal residents to ensure the opportunities that affordable broadband offers tribal communities do not go unrealized by the most needy.

34. (4) to form a federal agency-Native Nations task force to take the recommendations submitted to the FCC during the FCC consultation with tribes immediately following the FCC's submission of the National Broadband Plan and its Tribal Broadband Plan to the Congress on February 17, 2010, to revise the Tribal Broadband Plan no later than August 17, 2010, and annually thereafter.

35. **Streamlining and Improving Existing Federal Programs.** All relevant federal agencies should review their broadband programs to identify what internal barriers, if any, may be making tribal broadband deployment more difficult. Examples of such barriers are the term-of-art definitions of tribal lands or Indian Country or reservation that raise barriers to tribal applications from Alaska or Oklahoma or landless tribes, and federal agency preferences for loans instead of grants, or grants with large matching requirements from tribal awardees.

36. **Promoting Efficient Use of Government Funds and Resources.** Federal agencies should review their broadband and non-broadband-related programs that involve tribal issues to assess whether those programs provide opportunities to promote rural broadband deployment.

37. **Government Websites.** One barrier to tribal broadband deployment and adoption is a lack of easily-accessible and coordinated information about government resources available for promoting broadband. To help address this problem, we recommend that the Commission expand its website to include a comprehensive set of links to all federal government programs related to tribal broadband. We also suggest expanding the Commission and USDA develop a "Broadband Opportunities for Tribes" website to include a comprehensive list of all federal government programs related to tribal broadband.

♦ ***Assessing Tribal Broadband Needs***. Congress should direct the NTIA, with FCC Tribal Affairs Bureau support, "to address both short- and long-term needs assessments" for tribal broadband.

38. **Technological Considerations.** Every tribal area presents its own special

challenges, and a particular technological solution may be well-suited to one situation and poorly-suited to another. Decision makers therefore should proceed on a technology-neutral basis—by considering the attributes of all potential technologies—in selecting the technology or technologies to be deployed in a particular tribal area.

39. **Information on Broadband Availability.** One significant challenge to ubiquitous broadband deployment in rural areas is obtaining accurate information on broadband service and infrastructure availability and the demand for broadband services. Pursuant to the Broadband Data Improvement Act (BDIA) and the Recovery Act, the Commission should work to collect this information to better inform decision making, in coordination with the administration, and Tribal and state governments.[20]

40. **Broadband Mapping.** Broadband mapping is a necessary tool for identifying and tracking broadband service availability and infrastructure deployment, yet it is only as accurate and reliable as its underlying data. Pursuant to the Recovery Act, the NTIA was appropriated funds and directed to convey such funds to one entity designated by each State to conduct broadband mapping of all state lands and tribal lands. A minority of States are working with tribes to complete broadband mapping of tribal lands, and the majority of States are not and will likely submit broadband maps that do not map or inadequately map tribal lands. The NTIA should seek validation from a tribe of any broadband maps submitted for the tribe's lands by a State, and for any tribe that deems such broadband mapping of its lands inadequate, the NTIA should immediately award funding to either the tribe or its designee or a contractor that is contractually bound to work cooperative with tribes to complete broadband mapping for all tribal lands. The NTIA and its designees should work cooperatively with the U.S. Census Bureau to obtain information required for its broadband mapping efforts.

41. **Stimulating and Sustaining Demand for Broadband.** Various factors may affect demand for and adoption of broadband services in tribal areas, including the historical absence of broadband in the daily life of tribal citizens at home or at work or in school, and a resulting a lack of knowledge regarding the benefits of Internet access, lack of training on how to use a computer, and affordability. To help stimulate and sustain demand for and adoption of broadband services by tribes and tribal citizens, both public and private entities should consider developing consumer education and training initiatives, broadband affordability programs, and other incentives to achieve sustainable penetration rates.

42. **Addressing Broadband Infrastructure Costs.** Broadband is a trust asset of tribes, no less than surface or subsurface resources of tribal trust lands, and the deployment of broadband is a trust obligation of tribes' trustee, the federal government. Reliance on market forces alone to provide communications infrastructure to tribes over the last 50 years has resulted in over one third of tribal citizens without even plain old telephone service. Only federal funding of broadband infrastructure and the cooperative efforts of the federal government and tribes will bring robust and affordable broadband services to all tribes and anchor tribal institutions. A significant, if unknown, percentage of the cost of broadband infrastructure deployment is already funded by such initiatives as tele-medicine projects of the Indian Health Serivce, and technology projects of the Department of Homeland Security, Department of Justice, Department of Energy,

[20] Broadband Data Improvement Act of 2008, Pub. L. No. 110-385, 122 Stat. 4097 (2008) (codified at 47 U.S.C. §§ 1301–04) (BDIA).

Bureau of Indian Education, and other federal agencies. However, federal law and regulation often prohibits the sharing of costs among federal programs. These prohibitions must be set aside and the many stove pipes of federal programs collapsed to permit broadband infrastructure to carry their bits and bytes over a single broadband network infrastructure. Therefore, all levels of government should explore ways to help consolidate the costs of rural broadband deployment.

♦ ***Overcoming Challenges to Tribal Broadband Deployment.*** The Tribal Broadband Plan will be successfully implemented only if the Federal Communications Commission addresses tribal recommendations for universal service reform, eligible telecommunications carrier designation process reform, network openness, spectrum access, middle mile/special access reform, inter-carrier compensation, access to poles and rights of way, tower siting, national historical preservation act (NHPA) processes, national environmental policy act (NEPA) processes, and video programming proceedings. The Commission should consider all these proceedings as it implements and updates the Tribal Broadband Plan, balancing the tribes' recommendations in these matters with the need to deploy ubiquitous broadband for all tribal governments and anchor tribal institutions and tribal citizens. Of particular note, I continue to support comprehensive reform of the universal service program.

♦ ***Status Report.*** To help inform Congress of any needed changes to the recommendations in these challenges to the implementation of the Tribal Broadband Plan, including the completion of the National Broadband Plan, the Federal Communications Commission Chairman should complete a status report on the Tribal Broadband Plan by February 17th every year beginning in 2011.

II. COORDINATION OF TRIBAL BROADBAND EFFORTS

43. *The Role of the USDA's RUS.* The USDA's RUS plays a particularly important role in administering programs that aim to expand utilities and new technologies to rural communities. In particular, RUS administers three programs aimed specifically at improving broadband access: the Rural Broadband Access Loan and Loan Guarantee Program;[21] the Community Connect Grant Program;[22] and the Distance Learning and Telemedicine Loan and

[21] The Rural Broadband Access Loan and Loan Guarantee Program provides loans and loan guarantees to fund the "cost of construction, improvement, or acquisition of facilities and equipment for broadband service," with priority given to areas where broadband service is not available or is inadequate. RUS is in the process of promulgating regulations to implement program requirements mandated by the 2008 Farm Bill. *See* 7 C.F.R. § 1738.10–11; USDA Telecommunications Program: Rural Development Broadband Loan and Loan Guarantee Program, http://www.usda.gov/rus/telecom/broadband.htm (last visited May 19, 2009). We note that on April 13, 2009, USDA's Inspector General released an audit report regarding RUS's broadband loan program, finding that the agency had not implemented eight of fourteen recommendations from a 2005 audit report and expressing concerns about the future of the program. *See* OFFICE OF INSPECTOR GENERAL, USDA, REPORT NO. 09601-8-Te, AUDIT REPORT: RURAL UTILITIES SERVICE BROADBAND LOAN AND LOAN GUARANTEE PROGRAM 4, 10 (2009), *available at* http://www.usda.gov/oig/webdocs/09601-8-TE.pdf. We understand that the 2008 Farm Bill addressed six of these recommendations, and RUS is taking responsive action to the extent it can, regarding the remaining two recommendations. *See id*. at 4.

[22] The Community Connect Grant Program provides financial assistance to unserved areas to connect critical community facilities, such as schools, libraries, hospitals, law enforcement, emergency services, and public safety organizations. Funds may be used to finance the construction and acquisition of facilities to deploy broadband and to purchase end-user equipment. At a minimum, a project must deploy basic broadband to critical community facilities free of charge for two years; offer basic broadband to all residential and business customers within the service area; and provide free access at a community center for at least two years. *See* Broadband Grant Program, 69 Fed. Reg. 44,896, 44,897 (Jul. 28, 2004); 7 C.F.R. § 1739.11–.12.

Grant Program.[23] The funding available under these programs to expand broadband coverage helps offset prohibitively high deployment costs that plague many rural areas. As part of the Recovery Act, Congress authorized an additional $2.5 billion in funding for these programs.[24]

44. The RUS broadband programs present several challenges to tribes and tribal broadband deployment. Unlike some of RUS's other infrastructure programs, the RUS broadband programs only have a limited ability to offer projects combining loan and grant funds. The primary RUS broadband program is the Broadband Loan Program. Under the Broadband Loan Program, it is difficult for RUS to tribal projects because most tribes lack the needed resources to make a broadband loan work, including a lack of collateral and an inability to collaterize trust lands. Tribes are better candidates for the Community Connect Broadband Grant program, but the funding for that program is severely limited ($13.4 million for the 2009 fiscal year). The RUS should develop and offer a tribal broadband program that offers assistance in the form of grants and loan/grant combinations designed to assist tribal communities.

45. *NTIA.* The NTIA also has an important role to play in tribal broadband development. The Recovery Act appropriates $4.7 billion to the NTIA to "establish a national broadband service development and expansion program" called the "Broadband Technology Opportunities Program" (BTOP).[25] This program will award grants[26] to states, non-profit organizations, and broadband providers to fulfill the broadband deployment goals of the Recovery Act.[27] The NTIA must award, "to the extent practical," at least one grant in each

[23] The Distance Learning and Telemedicine programs provide a combination of loans and grants to improve educational and health care opportunities. The grant program focuses primarily on connecting students and teachers or medical providers and patients at separate locations, while the loan and combination loan/grant program seeks to fund additional resources to improve medical care and education. Funds generally are used to finance broadband infrastructure, purchase land and buildings, acquire end-user and other equipment, and provide technical assistance and instruction. *See* 7 C.F.R. §§ 1703.121, 1703.130, 1703.140; USDA Telecommunications Program: Loans and Grants, http://www.usda.gov/rus/telecom/RDtelecom-loansandgrants.htm (last visited May 19, 2009).

[24] Recovery Act, Division A, Title I, Rural Utilities Service (RUS Appropriations).

[25] Recovery Act, Division A, Title II, National Telecommunications and Information Administration (NTIA Appropriations); Recovery Act § 6001. The BTOP has five enumerated purposes in the Recovery Act: "(1) provide access to broadband service to consumers residing in unserved areas of the United States; (2) provide improved access to broadband service to consumers residing in underserved areas of the United States; (3) provide broadband education, awareness, training, access, equipment, and support to [organizations including schools, libraries, health care providers, and outreach organizations]; (4) improve access to, and use of, broadband service by public safety agencies; and (5) stimulate the demand for broadband, economic growth, and job creation." Recovery Act § 6001(b); *see also* United States Department of Commerce, Information Related to the American Recovery and Reinvestment Act of 2009, http://www.commerce.gov/Recovery/ (last visited May 19, 2009).

[26] NTIA may award competitive grants to: "(1) acquire equipment, instrumentation, networking capability, hardware and software, digital network technology, and infrastructure for broadband services; (2) construct and deploy broadband service related infrastructure; (3) ensure access to broadband service by community anchor institutions; (4) facilitate access to broadband service by low-income, unemployed, aged, and otherwise vulnerable populations in order to provide educational and employment opportunities to members of such populations; (5) construct and deploy broadband facilities that improve public safety broadband communications services; and (6) undertake such other projects and activities as the Assistant Secretary finds to be consistent with the purposes for which the program is established." Recovery Act § 6001(g).

[27] Specifically, the Recovery Act states, "To be eligible for a grant under the program, an applicant shall—(1)(A) be a State or political subdivision thereof, the District of Columbia, a territory or possession of the United States, an Indian tribe (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450(b)) or native Hawaiian organization; (B) a nonprofit—(i) foundation, (ii) corporation, (iii) institution, or (iv)

(continued....)

state,[28] and in doing so must consider a variety of factors, including affordability and speed, as well as improved access for healthcare, education, and children,[29] and "whether the applicant is a socially and economically disadvantaged small business concern."[30] Grantees under this program will also be subject to "non-discrimination and network interconnection" obligations.[31]

46. In addition, the Recovery Act requires NTIA to "develop and maintain a comprehensive nationwide inventory map of existing broadband service capability and availability in the United States that depicts the geographic extent to which broadband service capability is deployed and available from a commercial provider or public provider throughout each State."[32] Such a map is required to be made accessible in an interactive and searchable format on the web by February 17, 2011.[33]

47. The NTIA mapping project assigns the responsibility to map tribal lands to States. While a few States will work cooperatively with tribes to map tribal lands, most States will either map tribal lands inadequately or fail to map tribal lands altogether. NTIA should be directed to require validation of tribal lands mapping by each tribe, and if a tribe withholds such validation, to contract with the tribe or its designee or a contractor contractually bound to work cooperatively with tribes to complete the mapping of all tribal lands.

48. Tribes' concerns and requested changes to the NTIA and RUS NOFA is detailed in the attached joint comments from NCAI-NPM-SCTCA to the BIP/BTOP RFI (Docket No. 0907141137-91375-05) dated November 30, 2009. We support these recommendations.

49. *Other Agencies.* There are several other programs run by various federal agencies, including the Commission, that provide or have provided broadband-related funding.[34] Developed essentially in administrative silos and existing in parallel within their respective administrative agencies, while these programs are responsible for significant annual spending, they are subject to law and regulation that prohibit the sharing of broadband infrastructure resources with other programs, despite the bits and bytes of one program looking much like the bits and bytes of another. For the purposes of tribal broadband deployment, these programs share common broadband purposes and goals, and can provide a significant economy of scale

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association; or (C) any other entity, including a broadband service or infrastructure provider, that the Assistant Secretary finds by rule to be in the public interest. In establishing such rule, the Assistant Secretary shall to the extent practicable promote the purposes of this section in a technologically neutral manner." *Id.* § 6001(e).

[28] *Id.* § 6001(h)(1).

[29] *Id.* § 6001(h)(2).

[30] *Id.* § 6001(h)(3).

[31] *Id.* § 6001(j). Section 6001(j) of the Recovery Act states, "Concurrent with the issuance of the Request for Proposal for grant applications pursuant to this section, the Assistant Secretary shall, in coordination with the Commission, publish the non-discrimination and network interconnection obligations that shall be contractual conditions of grants awarded under this section, including, at a minimum, adherence to the principles contained in the Commission's broadband policy statement (FCC 05-15, [1] adopted August 5, 2005)." *Id*.

[32] Recovery Act § 6001(l).

[33] *Id*.

[34] Appendix A provides a non-exhaustive list of these programs.

and sharing of costs. Coordination between federal agencies must be mandated if tribal broadband deployment is to realize the full benefit of federal resources that have already been dedicated to bringing broadband to tribes and to best leverage further investments of both taxpayer monies and private capital.

50. Tribal Lands

51. Tribal consultation would reveal tribes' intense concern over the definition of tribal lands used by the FCC[35], NTIA and RUS. Currently, the Commission's definition of Indian Country" means: "(a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation; (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state; and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. 18 U.S.C. § 1151. For the purpose of this document, Indian Country also includes Alaska Native Villages, Native Hawaiian Homeland, and Trust lands." This use of a criminal statute as a definition of Indian Country is inappropriate and results in potential ineligibility for many tribes. The Commission cannot use "Indian Country," "Tribal areas," and "Tribal lands" interchangeably unless based upon an appropriate definition. *See* RURAL BROADBAND REPORT at para. 31 n.54. The Commission should use the following definition for the National Broadband Plan and its Tribal Broadband Plan with deletion of the references to Hawaiian lands, as follows: "The terms Tribal Lands, Indian Country, Reservation, or tribal trust lands shall mean American Indian Area, Alaska Native Area, [delete *Hawaiian Home Land (AIANAHH)*] as used by the US Census Bureau referring to the following types of geographic areas: federal and state American Indian reservations, American Indian off-reservation trust land (individual or tribal), Oklahoma tribal statistical area (in 1990 tribal jurisdictional statistical area), tribal designated statistical area, state designated American Indian statistical area, Alaska Native Regional Corporation, Alaska Native village statistical area [delete *and Hawaiian home lands*]."

52. To ensure a truly comprehensive strategy for addressing rural broadband, it is important that the federal government maintain a continuing dialogue with Tribal governments to address these issues. The Commission's Tribal outreach has been insufficient to date. The FCC's *Tribal Policy Statement*, wherein the Commission reaffirmed its recognition of Tribal sovereignty and the trust relationship between the Commission as part of the federal government and Tribal Nations[36] indicates the Commission values a government-to-government relationship with federally recognized Indian Tribes and Alaska Native communities, however policy statements must be implemented by consultation between the Commission and the tribes as the principal means of identifying and working to resolve communication policy issues relevant to tribes.

53. In addition to the *Tribal Policy Statement*, the Commission created Tribal Land bidding credits to assist those Tribal communities with the greatest need for telecommunications services. The Tribal Land bidding credits provide winning bidders in spectrum auctions that

[35] *See supra* note **Error! Bookmark not defined.** (concerning the definition of Indian Country).

[36] *See Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes*, Policy Statement, 16 FCC Rcd 4078 (2000) (*Tribal Policy Statement*).

agree to deploy facilities and provide service in certain Tribal areas with a discount on their spectrum.[37] However, these bidding credits have failed to provide spectrum to tribes and must be revised. The Commission should recognize the sovereign status of tribes by conveying spectrum to tribes for licensing and deployment under tribal jurisdiction within the boundaries of tribal lands.

III. OVERCOMING CHALLENGES TO TRIBAL BROADBAND DEPLOYMENT

A. Universal Service Programs and Reform

54. The 1996 Act codified the historical commitment of the Commission and state regulators to promote universal service by ensuring that consumers in all regions of the nation have access to affordable, quality telecommunications services.[38] The 1996 Act added section 254 to the Communications Act, which directs the Commission, after consultation with the Federal-State Joint Board on Universal Service (Joint Board), to establish specific, predictable, and sufficient support mechanisms to preserve and advance universal service.[39] In addition, in section 254(b), Congress provided a list of principles upon which the Commission must base policies for the preservation and advancement of universal service.[40] Among other things, section 254(b) directs that quality services should be available at just, reasonable, and affordable rates; access to advanced telecommunications and information services should be provided in all regions of the nation; and consumers in all regions of the nation, including those in rural areas, should have access to telecommunications and information services that are reasonably comparable to those services provided in urban areas.[41]

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[37] *See infra* Part VI.C (providing a detailed discussion of Tribal Land bidding credits).

[38] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 § 254 (1996) (codified at 47 U.S.C. § 254); *see also Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Notice of Proposed Rulemaking and Order Establishing Joint Board, 11 FCC Rcd 18092 (1996). Historically, the purpose of universal service support has been to promote universally available basic telephone service at reasonable and affordable rates. Before the 1996 Act, universal service was promoted largely through implicit support mechanisms.

[39] 47 U.S.C. § 254(a), (b)(5).

[40] 47 U.S.C. § 254(b)(1)–(7).

[41] 47 U.S.C. § 254(b)(1)–(3). Specifically, the Communications Act requires that universal service policies be based on the following principles: "(1) QUALITY AND RATES.—Quality services should be available at just, reasonable, and affordable rates. (2) ACCESS TO ADVANCED SERVICES.—Access to advanced telecommunications and information services should be provided in all regions of the Nation. (3) ACCESS IN RURAL AND HIGH COST AREAS.—Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas. (4) EQUITABLE AND NONDISCRIMINATORY CONTRIBUTIONS.—All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service. (5) SPECIFIC AND PREDICTABLE SUPPORT MECHANISMS.—There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service. (6) ACCESS TO ADVANCED TELECOMMUNICATIONS SERVICES FOR SCHOOLS, HEALTH CARE, AND LIBRARIES.—Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services as described in subsection (h). (7) ADDITIONAL PRINCIPLES.—Such other principles as the [Federal-State Joint Board on Universal Service] and the Commission determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this Act." 47

(continued....)

55. To implement the universal service goals outlined in the 1996 Act, the Commission established the High-Cost Program, the Low-Income Program, the E-rate Program, and the Rural Health Care Program.[42] The universal service programs are funded by contributions from telecommunications carriers providing interstate telecommunications services and from certain other providers of interstate telecommunications.[43] While the universal service programs have primarily been focused on ensuring the availability of telecommunications services, the Commission has made efforts to expand broadband availability through universal service policies and is considering how to reform the programs to further expand broadband availability.[44] The four universal service programs currently treat the support of broadband differently. The Rural Health Care Program and the E-rate Program explicitly support the provision of broadband. The High-Cost Program indirectly supports the provision of broadband, and the Low-Income Program does not currently support broadband. These programs must be closely analyzed to determine where they raise barriers to tribal broadband deployment and appropriately revised.

56. The Communications Act specifies that "[u]niversal service is an evolving level of telecommunications service" that should be revisited periodically, and the Commission has been considering comprehensive universal service reform.[45] In 2007, the Joint Board recommended including broadband service as a supported service under the High-Cost Program and proposed permitting states to use various methods to allocate available universal service funds for broadband projects to reach unserved areas, including funding broadband projects through a competitive bidding system designed to select the most efficient provider of such

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U.S.C. § 254(b). The Commission adopted the additional principle that federal support mechanisms should be competitively and technologically neutral. *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8801–02, paras. 46–48 (1997) (*Universal Service First Report and Order*).

[42] In 2008, the Universal Service Administrative Company (USAC) disbursed approximately $7.1 billion in universal service support: approximately $4.4 billion for the High-Cost Program; approximately $1.7 billion for the E-rate Program; approximately $819 million for the Low-Income Program; and approximately $49 million for the Rural Health Care Program. USAC, 2008 ANNUAL REPORT (2008) (USAC 2008 ANNUAL REPORT).

[43] Section 254(d) of the Communications Act directs that "[e]very telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service." 47 U.S.C. § 254(d). Section 254(d) further provides that "any other provider of interstate telecommunications may be required to contribute to the preservation and advancement of universal service if the public interest so requires." *Id*. The Commission has determined that any entity that provides interstate telecommunications to others for a fee must contribute, based on contributors' interstate and international end-user telecommunications revenues, to the universal service fund. *Universal Service First Report and Order*, 12 FCC Rcd at 9183–84, para. 795. The Commission also requires certain other providers of interstate telecommunications to contribute to the universal service fund. *See, e.g.*, *Universal Service Contribution Methodology*, WC Docket Nos. 06-122, 04-36, CC Docket Nos. 96-45, 98-171, 90-571, 92-237,99-200, 95-116, and 98-170, Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518 (2006) (*2006 Interim Contribution Methodology Order*) (requiring interconnected VoIP providers to contribute to the universal service fund), *aff'd in part and vacated in part on other grounds*, *Vonage Holdings Corp v. FCC*, 489 F.3d 1232 (D.C. Cir. 2007).

[44] *See November 2008 Further Notice*, apps. A, C (seeking comment on requiring recipients of high-cost support to offer broadband services, and seeking comment on a low-income support pilot program for broadband services).

[45] 47 U.S.C. § 254(c).

service.[46] The Commission declined to adopt the recommendations of the Joint Board.[47] In 2008, the Commission released a Further Notice seeking comment on ways to comprehensively reform the federal universal service fund.[48] For example, the Commission sought comment on requiring recipients of high-cost support to offer broadband Internet access service throughout their service areas.[49] In the *National Broadband Plan NOI*, the Commission also sought comment on universal service reform.[50]

57. Universal service should be used as a mechanism to ensure that broadband services are deployed to tribes through comprehensive reform of the universal service fund. It is of great interest to Congress, consumers, industry, and the Commission, and it is time for universal service to meet the challenges of the 21st century—broadband deployment—just as it did the challenge of the 20th century: telephone service. And while there are a variety of ways to comprehensively reform the system, adding broadband to both the contribution and distribution sides of the ledger, eliminating the identical support rule, and conducting effective auditing and oversight, along with a Congressional change to include intrastate as well as interstate revenue as part of the fund, would accomplish a great deal in addressing the sustainability and integrity of the fund for the long term and promote broadband in the areas served by the fund.

B. Spectrum Access

58. Wireless service will play a critical role in ensuring that broadband reaches tribes. Because wireless infrastructure costs are frequently less significant than comparable wired broadband deployments, wireless broadband can be an efficient means of delivering both backhaul and "last-mile" access services in rural areas.[51] It can also enable mobility or portability. Consequently, wireless broadband service can offer cost-effective connectivity where no broadband exists, as well as complementary or competitive service where it does.[52]

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[46] *High-Cost Universal Service Support, Federal-State Joint Board on Universal Service*, WC Docket No. 05-337, CC Docket No. 96-45, Recommended Decision, 22 FCC Rcd 20477, 20488–89, para. 47 (Fed-State Jt. Bd. 2007).

[47] *November 2008 Further Notice* at paras. 30–37.

[48] *Id.* at para. 40, app. A, paras. 19–31, app. C, paras. 19–31.

[49] *Id*.

[50] For example, the Commission sought comment on: (1) "what modifications [to universal service], if any should be considered as part of a national broadband plan;" (2) each program's "effectiveness and efficiency as a mechanism to help achieve national broadband goals;" (3) "[i]f broadband services become eligible to receive high-cost and low-income support, should we also require contributions to universal service form broadband providers;" and (4) how the programs can be modified "to encourage community broadband development." *National Broadband Plan NOI* at paras. 39–41.

[51] *See* WIRELESS BROADBAND ACCESS TASK FORCE, FCC, CONNECTED & ON THE GO 2 (2005), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-256693A1.pdf (WIRELESS BROADBAND ACCESS TASK FORCE REPORT); s*ee also* APPALACHIAN REGIONAL COMM'N, EVALUATION OF THE APPALACHIAN REGIONAL COMMISSION'S TELECOMMUNICATIONS PROJECTS: 1994–2000, at v–vii (2003), http://www.arc.gov/images/reports/telecomeval/telecom_eval.pdf (discussing reducing infrastructure costs).

[52] *See* WIRELESS BROADBAND ACCESS TASK FORCE REPORT at 13–14; *see also see also* 2009 HIGH SPEED REPORT at 1 (explaining that information about subscribership to high-speed services, including advanced services, includes data concerning terrestrial wireless service providers, in addition to data concerning wireline telephone companies, cable system operators, and satellite service providers).

59. The Commission's spectrum policies should promote wireless broadband deployment for tribes, including increasing spectrum availability to tribal governments by recognizing tribal government jurisdiction over their tribal lands.

60. *Tribal Land Bidding Credits.* In 2000, the Commission created Tribal Land bidding credits to assist Tribal communities with the greatest need for access to telecommunications service.[53] The bidding credits are available to winning bidders in wireless spectrum auctions that agree to deploy facilities and provide service in certain Tribal areas,[54] namely federally-recognized Tribal areas with telephone penetration rates equal to or less than 85 percent.[55] In order to ensure that applicants awarded bidding credits actually deploy facilities and provide service to Tribal lands, the Commission requires that a licensee construct and operate its system to cover 75 percent of the population of the qualifying Tribal Land within three years of the grant of the license or face repayment penalties and, potentially, license termination.[56]

61. These policies have not been successful in promoting tribal broadband

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[53] *Extending Wireless Telecommunications Services to Tribal Lands*, WT Docket No. 99-266, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd at 11794, 11802, para. 22 (2000) (*TLBC First Report and Order*).

[54] In order to obtain a bidding credit in a particular market, a winning bidder must indicate on its long-form application (FCC Form 601) that it intends to serve Tribal lands in that market. *Id.* at 11805, para. 31. Following the long-form application filing deadline, the applicant provided an additional 90 calendar days beyond the deadline to amend its application to identify the Tribal lands to be served, and provide certification from the Tribal government(s). In particular, applicants must provide certification from the applicable Tribal government that: (1) it will allow the bidder to site facilities and provide service on its Tribal Land(s), in accordance with our rules; (2) it has not and will not enter into an exclusive contract with the applicant precluding entry by other carriers, and will not unreasonably discriminate against any carrier; and (3) its Tribal Land is a qualifying Tribal Land as defined in Commission rules. In addition, at the conclusion of the grace period, the applicant was required to amend its long-form application to file a certification that it would comply with the bidding credit buildout requirement, and that it would consult with the Tribal government regarding the siting of facilities and deployment of service on the Tribal Land. *Id.* at 11805–06, para. 32. The Commission, on its own motion, subsequently extended the grace period to 180 days. A winning bidder now has 180 days to amend its long-form application to identify the Tribal Land it seeks to serve, and to provide the required certification from the Tribal government. The winning bidder also has 180 days to file a certification that it will comply with the Tribal lands buildout requirements, and consult with the Tribal government regarding the siting of facilities and deployment of service on Tribal lands. *See Extending Wireless Telecommunications Services to Tribal Lands*, WT Docket No. 99-266, Second Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rcd 4775, 4779 para. 10 (2003) (*TLBC Second Report and Order*); *see also* 47 C.F.R. § 1.2110(f)(3)(ii)(A) (2003).

[55] *Extending Wireless Telecommunications Services to Tribal Lands*, WT Docket No. 99-266, Third Report and Order, 19 FCC Rcd 17652, 17659, para. 18 (2004) (*TLBC Third Report and Order*).

[56] *TLBC First Report and Order*, 15 FCC Rcd at 11,806–07, para. 35. The Commission also requires that, at the conclusion of the three-year period, licensees file a notification of construction indicating that they have met the 75% construction requirement on the Tribal lands for which the credit was awarded. If the licensee fails to comply with any condition, it is required to repay the bidding credit plus interest 30 days after the conclusion of the construction period. In the event the licensee fails to repay the amount, the license automatically cancels. *Id*. at 11807, para. 37. Additionally, in order to verify compliance with the Tribal lands construction requirement, the Commission requires licensees to file an attachment along with their notification of construction, stating that it covers 75% of the population of the Tribal area for which the credit was awarded and providing the data to support that statement. *TLBC Second Report and Order*, 18 FCC Rcd at 4780, para.13. Finally, the Commission expressly codified penalties for failure to comply with buildout requirements, and failure to timely repay the bidding credit. *Id.* at 4781, para. 14; *see also* 47 C.F.R. § 1.2110(f)(3)(vii) (2003).

deployments. In particular, there remains a lack of available, affordable, and suitable spectrum for tribal wireless broadband; that the FCC's secondary market rules do not always promote spectrum trading and re-use;[57] and that backhaul costs between wireless points of presence are prohibitively high.[58]

62. We recommend the Commission conduct a thorough inventory of the spectrum it has already licensed, examining how, why, and where it is used, and identifying distinct geographic areas where service has not been deployed or where the spectrum is being used inefficiently. The Commission could then consider various ways to redeploy this spectrum to tribal governments.

63. **Community Hubs**

64. In these tribal areas of suboptimal broadband deployment and adoption, tribal governments may provide local community hubs (libraries, tribal schools and colleges, job and vocational training centers, government program and business offices, etc.) as the stop-gaps for tribal citizens to obtain access to broadband, which is essential given that plain old telephone service penetration on tribal lands is below 68% even after 50 years of the Federal Communications Commission's Universal Service Fund. These hubs, if provided connectivity to broadband, would be used in ways that create economic opportunities.

65. Tribal offices, tribal schools and colleges, tribal job and vocation training centers, tribal libraries, and tribal enterprise offices are the key community hubs that often act as access points for individuals to gain broadband access. The connections offered at these hubs is predominately dial-up, with little access to DSL, cable, or DIA). Speeds amongst shared multiple computers that enjoy access have throughput rates less than current expectation for broadband.

66. Questions about the ratio of available connections to number of people regularly served by the tribal community hub, including questions about waiting lines for connectivity and the limits on access for individuals, such as time limits on individuals, restriction of activities, etc, are moot given the predominant unavailability of broadband on most tribal lands.

67. The off-line services that these hubs could offer would help make broadband more relevant, useful and more widely adopted, when available to tribal households, by offering such services as training, digital literacy, resource guides, etc. The "TIA Report on National Broadband Plan" dated September 29, 2009, reported that over 70% of classrooms deliver

[57] *See* API Comments at 5 (stating that secondary markets for suitable broadband spectrum are dysfunctional in that incentives for auction winners or spectrum lessors to lease, partition, or sublease spectrum in rural areas are not compelling).

[58] *See, e.g.*, Big Think Strategies Comments at 8 (urging the Commission to consider the need for some sort of fixed, reasonable pricing on backhaul/middle mile costs to an upstream Internet access point); ACS Comments at 3 (stating that a component of broadband sustainability is actual access to the Internet based on economically available backhaul facilities); Fibertech/KDL Comments at 9 (stating that backhaul represents an enormous cost to wireless providers and can be prohibitively expensive in rural areas). We also note that roundtable participants at the March 19, 2009 NTIA/RUS Public Meeting about the Broadband Technology Opportunities Program explained that, in some areas, backhaul costs were the reason communities were unserved. *See, e.g.*, John Rose, President of OPASTCO, Remarks at the U.S. Dep't of Commerce Roundtable on Rural and Unserved Areas (Mar. 19, 2009) (transcript available at http://www.ntia.doc.gov/broadbandgrants/090319/NTIA_031909_1445_1615_session.pdf).

education by means of broadband, and 77% of Fortune 500 companies posted job listings and received job applications via the internet. Without access to broadband, tribal students cannot prepare for the 21st century marketplace and tribal citizens cannot compete with job seekers better prepared with job skills developed in a broadband environment.

68. **Business Adoption and Usage**

69. If tribal governments are to realize the economic benefits of broadband on tribal lands, then adequate availability, adoption and usage of broadband by tribal governments, tribal citizens and tribal business will be a central component.

70. Broadband access services (ADSL, SDSL, cable modem, FTTx, satellite, fixed wireless, DIA) are currently available to only on tribal lands where the tribal government operates a large tribal gaming enterprise, which are few in number. The remainder of tribal lands, with few exceptions, have no such access. As a rule, tribes are unserved by broadband services, not just underserved, and all tribes should be defined as such in FCC broadband policy.

71. Mobile broadband services for tribal governments, tribal citizens and tribal businesses constitute a reasonable alternative where the size and topology of reservations make wireline (fiber) to the home, i.e., the last mile, economically impractical. This is a complementary solution to wireline (fiber) access for the broadband backbone network segment to the tribal government/tribal utility office(s).

72. All tribal lands should be defined in FCC broadband policy as unserved, and underserved only by exception. Broadband requirements differ in each particular tribal environment for "business-grade broadband."

73. (1) Tribal enterprise businesses, non-tribal businesses on tribal lands, tribal schools and colleges, tribal health clinics and tribal government offices require Dedicated Internet Access (DIA) service, and at a capacity / service level of MPLS OC3 to OC12.

74. (2) Excess capacity as dark fiber for tribal backbone network fiber-based connections would potentially alleviate issues around network performance. Over-provisioning bandwidth is perhaps the most economical method to eliminate concerns around latency or reliability.

75. (3) Bandwidth requirements will be greatest for tribal health clinics and their tele-medicine programs, certain tribal businesses, and tribal schools and colleges.

76. (4) Tribal government bandwidth requirements will differ depending on their adoption of electronic records programs.

77. (5) Full disclosures concerning broadband speed, service reliability, price, alternative options, supported applications, etc. are necessary for tribal government broadband service providers make to allow both tribal and non-tribal businesses, tribal health clinics, tribal schools and colleges, and tribal citizens to make well-informed broadband purchasing decisions.

78. Broadband applications are critical to tribal business productivity. Tribal governments and tribal enterprises, including non-tribal enterprises located on tribal lands, cannot compete in the 21st century marketplace with access to advanced IT applications through

broadband such as Customer Relationship Management (CRM), Enterprise Resource Planning (ERP), Supply Chain Management (SCM), Storage Area Networking (SAN), web conferencing, video conferencing, remote terminal and management, business intelligence and knowledge management. Today such contributions to business productivity are not available on tribal lands. Other applications that are critical to business productivity on tribal lands are tribal health care tele-medicine, electronic records management, hospitality and conference management, and tribal energy monitoring and management.

79. It is difficult and perhaps non-sensible to attempt to quantify the productivity benefits of using these applications for businesses when they are simply, as a rule, unavailable on tribal lands.

80. The level of broadband speed necessary for businesses to effectively use these applications is MPLS OC3 to OC12 and WIFI (802.11n at 2.4 GHz and up to 200 MB/s) and WIMAX (over 2 GHz to 66 GHz of spectrum at up to 75 MB/s).

81. The level of acceptable network performance / reliability is the relationship between throughput, latency, and user experience that is most aptly understood in the context of a shared network medium, and as an economic (cost) and engineering problem.

82. The principal barriers to application adoption and usage beyond speed and network performance is: (1) availability, as tribes are unserved; (2) topology and distance – tribal lands for many tribes cover vast distances in difficult terrain for most propagation techniques. When broadband access to made available on tribal lands, as proposed, IT training programs will be an essential tool if rates of application adoption and usage are to reach adequate levels.

83. High speed wireless applications are necessary to enable tribal citizens to telework and/or telecommuting (both fixed and mobile). Telework and/or telecommuting by employees will allow tribal and non-tribal enterprises on tribal lands and its tribal citizen employees to improve business productivity despite the constraints of wholly inadequate tribal roads and bridges that inhibit employment on certain vast tribal lands.

84. Business applications are employed differently by companies according to their business function, such as tribal health care tele-medicine and electronic records management, tribal government records management, public safety communications and background checks, tribal school and college research and libraries, tribal environmental documents, etc.

85. The September issue of “The Economist” featured a study of wireless communications use in rural India that demonstrated the significant and life-changing impact generated by small businesses made possible by wireless communications applications. This article may serve as a template for the beneficial impacts broadband will have on tribes if access is extended to tribal lands.

86. Small businesses require no different level of connectivity or application usage than medium or large enterprises. There are no sufficient services or applications available to small businesses on tribal lands today.

87. Tribes are more than Small Disadvantaged Businesses (SDBs), they are sovereign governments recognized in the United States Constitution that are the first of the three sovereigns of the United States of America (along with the federal and state governments). [1]

88. The economic effects of business broadband is the last chance for tribes to join the modern economy. With less than 68% plain old telephone service (POTS) on tribal lands after 50 years of the FCC's Universal Service Fund, tribes have the opportunity to leap-from legacy copper wireline technology by implementing broadband provided such access is delivered to tribal governments via high speed backbone networks by action of national broadband policy, and if no, tribes will continue as third-world economies for another generation or more.

89. Entrepreneurs would enjoy a wide spectrum of broadband opportunities, from an application that sends text messages to tribal public safety officers when cattle tagged with GPS collars are on reservation roads causing a traffic hazard, to on reservation customer service centers that replace those in India, to digitization of paper records by broadband connections.

90. Training programs that improve the Advanced IT skills of IT managers or other employees within a tribal business are partially funded today but have little impact without ubiquitous broadband access on tribal lands.

91. Existing Advanced IT / application training programs offered by federal government training organizations are insufficient to handle the needs of tribal businesses until the foundation of broadband access, education and training are realized on tribal lands.

92. **Broadband's Role in Regional Economic Development**

93. The potential of broadband on tribal lands to help localities and regions attract new businesses and build up economic bases is proven. Tribal gaming has, in the great majority of instances, transformed tribes into the largest employer in a rural locality and region, facilitating gains in employment, business development and charitable organizations. Obviously, broadband has the potential to facilitate similar development and foster the development of institutions critical in supporting that development.

94. **Workforce Development**

95. Federally-supported job training and placement programs cannot help Native Americans and Alaska Natives get jobs, find higher paying opportunities, or allow some to retain their current jobs on tribal lands when businesses are few and employment is between 50% and 80%. Broadband access on tribal lands would support Indian Country's federally-supported workforce development programs.

96. (1) The 50% to 80% unemployment rate on tribal lands quantifies the demand for federally-supported job training and job placement services.

97. (2) Tribal governments make job training and job placement opportunities available to its tribal citizens.

98. (3) Tribal job training must be effectively delivered via an online environment due to the large numbers of tribal citizens and the vast distances of remote tribal lands. There is really no alternative to success in online training.

99. (4) Few tribes have participated in online job training due to the near total lack of broadband access, but for the few that have done so, success may be anecdotally reported.

100. (5) Support the passage of a Tribal Telecommunications bill.

101. (6) Support tribal set aside of funding for Tribal Broadband Plan build out, with tribes provided with the necessary funding and recognized jurisdiction to build their own broadband systems.

102. (7) Change the Rural Utility Service loan policy that prohibits tribes from accessing funds to acquire facilities that are already the subject of existing loan programs.

103. (8) Expand access to broadband access by passing the Native American Connectivity Act, increasing the scope of the Universal Service Fund to include broadband and amending the Telecommunications Act to broaden the definition of "underserved areas." Work with regulators to include tribes in future ownership of telecommunications.

104. (9) Consider tribal land rights and ownership when tribes regulate or operate utilities within their reservations. Legislation should clarify court cases that create confusion about tribal jurisdiction.

105. (10) Allow tribes to lease facilities to service their population.

106. (11) Congress should require government-to-government consultation for spectrum management on tribal lands, and ensure tribal access and options for ownership and management of spectrum on tribal lands.

107. (12) The FCC should recommit itself to its policy of a government-to-government relationship with tribal governments and ensure that tribal governments have equal opportunities to those available to any other governing authority, and 1) adopt a definition for tribes as "unserved"; 2) recognize the authority of tribal governments regarding the use of FUSF funds on tribal lands; and 3) designate tribal lands as separate study areas.

108. (13) Tribal land carve-out from any caps on FUSF support, permanent waiver of the parent trap rule and waiver from any reverse auction policy.

109. (14) Advocate self-provisioning through tribal telecom development as a key empowerment of building tribal sovereignty.

110. (15) Universal service funds need to be better directed and held more accountable. The Commission's universal service policy reform must prioritize funding and efforts to connect unserved communities, particularly tribal communities as required by both the mandates of the Communications Act and as required under the Federal Tribal trust responsibility.

111. (16) The FCC needs to clarify and define its trust responsibilities to tribal communities.

112. (17) Efficiency as a criteria for eligibility as ETC carrier, at least in tribal areas, should not be predicated purely on "price", but should include the true "build-out" costs to "connect" all geographic areas of the service area, with particular emphasis on reaching previously "unconnected" residents.

113. (18) The Commission must enforce failure to fully connect all geographic areas in tribal areas, particularly when data and determination show that a carrier has failed to provide equitable service, or material incremental gains in connecting unserved areas.

114. (19) There should only be one ETC in a rural area, particularly in a tribal unserved area.

115. (20) Service plans in unserved tribal areas should be negotiated with the respective tribe(s). ETCs operating in unserved or historically underserved areas should be required to consult with tribes on how to improve connectivity in the tribal area and to file a plan with the Tribe and the Commission on proposed efforts.

116. (21) All providers should be held to the same standards of quality of service and reliability in order to attain or retain their ETC designation.

117. (22) The Tribe, as victim of the failure to provide fair and reasonable service, should have the delegated authority to choose or bid out its universal service provider.

118. (23) Tribes should be given every direct assistance, resource and opportunity available through the Commission's auspices, particularly in issuance of certificates of convenience and wireless licensing, to self-provision service.

119. (24) An annual report regarding the state of unserved areas with a specific emphasis on unserved tribal areas should be provided to the public by the Commission.

120. (25) The Federal Communications Commission should establish a Tribal Government Bureau.

121. (26) Tribal Broadband service obligation is to the tribe government.

122. a. National Backbone connectivity must be universal and ubiquitous by full spectrum connectivity to each tribal government.

123. b. Tribe has a government service obligation and the jurisdiction to provide broadband service to its own tribal lands and tribal citizens.

124. Definition of "tribal lands" for purposes of the Tribal Broadband Plan should use the U.S. Census definition.

125. Tribal Government Broadband Service Obligation & Sustainability

126. a. Tribes have many non-economic reasons to provide broadband

127. b. Tribe decides how broadband is to be delivered to tribal members

128. c. Redefines sustainability as a government service obligation

129. d. As government service obligation sustainability doesn't require initial profitability.

130. Tribal Broadband Plan Process

131. Establish benchmarks for tribal broadband deployment

132. Fund NTIA to complete a tribal broadband digital map for every tribe

133. Add tribal land ID requirement to Form 477

134. Identify best practices for tribal broadband deployment

135. Create Demonstration Projects

136. Set aside spectrum for deployment

137. Consider multiple specific frequencies to be set aside for tribes

138. Provide sufficient bandwidth for today and for reasonably foreseeable growth

139. Lighted and dark fiber should be deployed in all tribal backbone connectivity to provide for today's needs

140. Dark fiber should be deployed alongside lighted fiber sufficient for tomorrow's needs.

141. Share broadband services from various services

142. (1) Identify sources for tribal broadband access, sharing and funding

143. (2) Tribal supplied access

144. (3) BTOP & BIP funding

145. (4) Broadband services to Native health facilities – DHHS

146. (5) Broadband services to educational institutions – DOE, BIE

147. (6) Security services – DOJ, DHS, DOD

148. (7) Access backbone and broadband lines crossing tribal lands on third party right-of-ways

149. Tribal Economic Development Through Deployment of Broadband Infrastructure and Services

150. Tribal economies, like the general economy, depend in large part upon communications and education. Broadband communications are currently not available on reservations, even though communities immediately bordering reservations may have access to the latest broadband technologies. Broadband communications is essential both to tribal economic development and to tribal education. Without access to such technologies, tribes cannot hope to attract business and manufacturing to their reservations, and tribal students will not have the skill sets to compete for jobs. The solutions offered cover a range of communications topics, but all are intended to improve the economies of the federally recognized Indian and Alaska Native tribal governments.

151. The following recommendations originated in discussions at the Seventh Annual Indian Telecommunications Initiatives (ITI) Regional Workshop and Roundtable in Salt Lake City Utah on July 16-17, 2008. These initiatives may be approved by the Federal Communications Commission (FCC) or, where necessary, enacted by federal legislation.

152. The National Native American Economic Policy Summit[59] held in Phoenix, Arizona, May 15-17, 2007, composed of 500 key stakeholders gathered to discuss the challenges to growing healthy, vibrant Native economies, published recommendations for innovative and progressive solutions to foster tribal economic growth. Recommendations included solutions for updating current utilities, transportation and other needed core infrastructure components necessary for tribes to keep pace with existing local demand and allowing tribes the ability to access funds for future demand and growth.

153. Specific policy solutions offered by Summit participants that involve telecommunications in Indian Country and the FCC are the following recommendations:

154. Change the Rural Utility Service loan policy that prohibits tribes from accessing funds to acquire facilities that are already the subject of existing loan programs. This program prohibits tribes from owning their own utilities because of the lack of availability of low cost funds since it protects the existing utilities by not allowing funds to be used to acquire existing programs - creating a self-imposed barrier to entry.

155. Expand access to broadband access by passing the Native American Connectivity Act, increasing the scope of the Universal Service Fund to include broadband and amending the Telecommunications Act to broaden the definition of "underserved areas." Work with regulators to include tribes in future ownership of telecommunications.

156. Consider tribal land rights and ownership when tribes regulate or operate utilities within their reservations. Legislation should clarify court cases that create confusion about tribal jurisdiction.

157. Allow tribes to lease facilities to service their population. This would make it more cost effective and risk averse by providing local service with adjacent utilities that service the local non-reservation community.

158. Very few tribes have been able to access licensed spectrum for public safety, telephone, community broadband or broadcast media purposes. Instead, industry has purchased spectrum licenses throughout Indian Country with very little benefit to the public interest of tribes or Native American consumers. Summit participants recommend that Congress require government-to-government consultation for spectrum management on tribal lands, and ensure tribal access and options for ownership and management of spectrum on tribal lands.

159. The National Tribal Telecommunications Association ("NTTA") submitted comments in response to the Notices of Proposed Rulemaking ("NPRMs")[60], and within three NPRMs in which the FCC outlined broad potential reforms to the federal universal support fund ("FUSF").

160. The NTTA urged the FCC to ensure that the original goals of universal service

[59] NATIVE AMERICAN ECONOMIC POLICY REPORT DEVELOPING TRIBAL ECONOMIES TO CREATE HEALTHY, SUSTAINABLE, AND CULTURALLY VIBRANT COMMUNITIES, produced by the National Congress of American Indians and the Department of Interior, Office of Indian Energy and Economic Development.

[60] Comments of the National Tribal Telecommunications Association in the matter of High-Cost Universal Service Support, WC Docket No. 05-337, Federal-State Joint Board on Universal Service, CC Docket 96-45, April 17. 2008.

policy are fulfilled for *all* areas of the country prior to pursuing additional goals. NTTA asserted the FCC needs recommit itself to its policy of a government-to-government relationship with tribal governments and ensure that tribal governments have equal opportunities to those available to any other governing authority. Specifically, the NTTA proposed: 1) the Commission adopt a definition of unserved areas; 2) recognize the authority of tribal governments regarding the use of FUSF funds on tribal lands; and 3) designate tribal lands as separate study areas.

161. In Section V, pages 14-17, the NTTA summarized its proposal that the Commission embrace the opportunity before it to address the mandate by the Act that all Americans are connected to a communications network. Specifically, NTTA called on the Commission for innovative measures, as follows:

162. (1) Tribal land carve-out from any caps on FUSF support, permanent waiver of the parent trap rule and waiver from any reverse auction policy. These measures will enable communities in the most economically challenged and high-cost areas a hope that they, too, will be connected.

163. (2) The Universal Service Fund's primary mandate is to provide "voice dial-tone" connectivity for the hardest to reach market areas. The hard to reach areas are the highest-cost areas of providing service. Therefore an artificial cap on FUSF support, a reverse auction incentive to only provide the cheapest infrastructure, or severely limit spending in the highest-cost areas for tribal communities are the worst regulatory solutions imaginable.

164. (3) NTTA has advocated self-provisioning through tribal telecom development as a key empowerment of building tribal sovereignty. NTTA asserts that the costs entailed with providing self-service to connect tribal communities, viewed from the standpoint that only one tribally-owned telecommunications company has been formed every six years since passage of the Act, and the impact on the Universal Service Fund to promote tribal self-service will be minimal.

165. (4) NTTA's call for the Commission to define the term "unserved areas" as communities at least fifteen percent below the nationwide service average for service access is a crucial recognition that universal service funds need to be better directed and held more accountable. The Commission's universal service policy reform must prioritize funding and efforts to connect unserved communities, particularly tribal communities as required by both the mandates of the Communications Act and as required under the Federal Tribal trust responsibility.

166. (5) In assessing innovative solutions for tribal communities, the Commission needs to clarify and define its trust responsibilities to tribal communities. Issues of tribal sovereignty, tribal authority, and tension between tribes and states must be assessed by examining how greater self-service may improve connectivity in unserved areas, and how the use of outcome predicates and metrics for universal service support might enhance efforts to serve "the last mile" communities. Increases in connectivity in tribal unserved areas must be measurable, proven, and sustained to receive FUSF support.

167. (6) Focus has been directed at using "efficiency" as a predicate for allocating universal service funding. Efficiency as a criteria for eligibility as ETC carrier, at least in tribal areas, should not be predicated purely on "price", but should include the true "build-out" costs to "connect" all geographic areas of the service area, with particular emphasis on reaching

previously “unconnected” residents. An ongoing metric and outcome, as well as incremental gains in connecting previously “unserved” or “unconnected” residents must be part of the measure of efficiency and use of universal service funding. See the example of the Mescalero Apache community’s improvement from under 10% service penetration in 1990 to 98% connectivity in 2007 under Mescalero Apache Telecom’s enterprise, as a more significant measure of efficiency.

168. (7) The Commission must enforce failure to fully connect all geographic areas in tribal areas, particularly when data and determination show that a carrier has failed to provide equitable service, or material incremental gains in connecting unserved areas. When a determination has been made that a provider has discriminated against a tribal community or provided substantial lack of equitable service compared to a non-tribal community, the tribe should be delegated the authority to choose or bid—by value, not price—the next provider using the tribal area high-cost support to connect and serve the tribal area.

169. (8) There should only be one ETC in a rural area, particularly in a tribal unserved area. Competing technologies and providers vying for the same customer is inefficient use of FUSF support, increases accounting burdens on the universal service system, and lends itself to the continuance of unconnected customers being bypassed for more cheaply “connected” customers.

170. (9) Service plans in unserved tribal areas should be negotiated with the respective tribe(s). ETCs operating in unserved or historically underserved areas should be required to consult with tribes on how to improve connectivity in the tribal area and to file a plan with the Tribe and the Commission on proposed efforts. Failure to comply with its service plan, particularly coupled with failure to improve on connectivity in the tribal unserved area should result in the ETC losing the high-cost support for that tribal service area.

171. (10) All providers should be held to the same standards of quality of service and reliability in order to attain or retain their ETC designation. In that parity of standard principle, all ETCs must demonstrate specific outcomes of connectivity and incremental gains in connecting previously unconnected residential customers in tribal unserved areas. Failure to make “incremental gains” or to demonstrate improvement in connectivity should result in the provider losing their ETC status in the tribal area.

172. (11) The Tribe, as victim of the failure to provide fair and reasonable service, should have the delegated authority to choose or bid out its universal service provider.

173. (12) Tribes should be given every direct assistance, resource and opportunity available through the Commission’s auspices, particularly in issuance of certificates of convenience and wireless licensing, to self-provision service.

174. (13) An annual report regarding the state of unserved areas with a specific emphasis on unserved tribal areas should be provided to the public by the Commission.

175. Indian Ownership of broadband/Telecom Services: The Need for Technological Sovereignty on Tribal Reservations

176. The FCC should facilitate tribal ownership of telecommunications and broadband resources on tribal reservations. Broadband Internet connectivity is being both deployed and

owned by localities across the country as a consequence of the advent of Wireless (Internet and IP telephone through WIFI and WIMAX) infrastructure.

177. This subject was discussed in an FCC Indian Telecommunications Initiatives Regional Workshop and Roundtable held in San Diego, California on July 27 and 28, 2006. Wireless connectivity is dramatically less expensive and quicker to deploy than existing "wired" broadband/ telecommunication platforms. The great majority of tribal Reservations are in rural areas that have limited access to broadband service. Tribal communities desire to control their own future direction for local Internet/ telecommunications services in order to utlitize these new technologies for the greater good of their citizens and for economic development on their Reservation lands. The FCC can foster tribal economic initiatives involving on-reservation broadband telecommunications. New broadband technologies enable tribes to overcome limitations of infrastructure and location in the delivery of communications services and networks essential to tribal education and economic development. Tribal owned and operated broadband Internet telecommunication networks are the key to the education of tribal citizens and on-reservation economic development. Broadband Internet infrastructure is directly correlated to almost every indices of job creation and economic prosperity. Only FCC policy and services can permit tribes to take full advantage of this transformative opportunity. Tribal ownership and control of telecommunications/broadband services is the sovereign right of tribes and is necessary to transform the outcomes of education, business development and job creation on tribal reservations. The FCC must adopt and adapt their policies to facilitate communications business models based on tribal ownership of telecommunications/ broadband infrastructure and services which deliver last mile broadband on tribal reservations. Tribal economic growth in this 21st century depends upon this model. Thank you for the IAC participation in regard to this and related tribal telecommunications/broadband infrastructure.

178. Tribes' great concern with FCC policy is due, in large part, to its designation in 2001 of Western Wireless as an eligible telecommunications carrier (ETC) for Oglala Sioux tribal members living on the Pine Ridge Indian Reservation, thus making the company able to receive federal universal service support for providing telephone service to tribal members living on the Reservation. In an order released on October 9, the FCC concluded that it has the authority to make the ETC designation for tribal members on the Reservation, but that the SD PUC should retain jurisdiction for provision of service to non-tribal members living on the Reservation. In a companion order, the FCC designated Western Wireless to be an ETC for the purpose of serving the tribal population on the Reservation. While the designation of Western Wireless as an ETC is a positive step in terms of providing telephone service to tribal consumers, it is important to note that, in reaching its decision, the FCC relied on Montana v. U.S. (450 U.S. 544 (1981)) and subsequent Supreme Court decisions that strictly limited the authority of tribal governments to regulate the non-Indians living within their jurisdictional boundaries. This FCC order raises continuing concerns about tribal jurisdictional issues stemming from the Montana line of cases.

179. Designation as an eligible telecommunications carrier is necessary to receive federal funds to support four universal service programs. The high-cost program provides support for telephone service in high-cost areas of the county. The low-income program provides support to enable low-income consumers to obtain and retain telephone service. The schools and libraries program helps schools and libraries to buy telecommunications and information services, and the rural health care program provides similar assistance support to rural health care providers. The Telecommunications Act of 1996, as amended, authorizes the FCC to make

an ETC designation in cases where a carrier is not subject to state jurisdiction. Under the Universal Service Twelfth Report and Order, carriers serving tribal lands may petition the FCC for a determination whether the state lacks jurisdiction. The FCC first determines whether a carrier providing service on tribal lands is subject to the jurisdiction of a state commission or to tribal authority, given the tribal interests involved. If the FCC finds that the carrier is not subject to state jurisdiction, then it considers the merits of the carrier's request to be designated as an ETC.

180. In August 2000, Western Wireless and the Oglala Sioux Tribe signed the Tate Woglaka Service Agreement for the provision of telephone service on the Reservation. The agreement provides that the Tribe has the right to participate extensively in and administer the service plan for the Reservation. It also subjects Western Wireless to the Tribe's regulatory authority and requires that disputes under the agreement be resolved through an arbitration process that is enforceable by the Tribal court. In January 2001, Western Wireless filed a petition under the Twelfth Report and Order requesting ETC designation for the entire geographic area of the Pine Ridge Reservation. In its petition, supported by the Oglala Sioux Tribe, Western Wireless stated that it intends to provide supported services to both tribal and non-tribal members living on the Reservation if granted ETC status. The SD PUC opposed the petition, arguing, among other things, that Western Wireless is subject to its general regulatory authority under state law. In performing its analysis, the FCC relied on the Supreme Court's decision in Montana v. United States, in which the Supreme Court found that tribes generally lack regulatory authority over non-tribal members living on a reservation, with two exceptions. First, a "tribe may regulate, through taxation, licensing, or other means, the activities of nonmembers who enter consensual relationships with the tribe or its members, through commercial dealing, contracts, leases, or other arrangements.(450 U.S. 544, 565 (1981)) Second, a tribe may "exercise civil authority over the conduct of non-Indians on fee lands within its reservation when that conduct threatens or has some direct effect on the political integrity, the economic security, or the health or welfare of the tribe. (450 U.S. 544, 566 (1981))

181. The FCC concluded that the first Montana exception is satisfied under the provisions of the service agreement and further found that the Tribe's sovereignty interests in Western Wireless' service to tribal members outweigh the State's regulatory interests. However, the FCC concluded that it would not support the extension of tribal jurisdiction to non-tribal members on the Reservation. This finding was based on the second Montana exception, which has been narrowly construed in Supreme Court decisions to include only those activities that are "necessary to protect tribal self-government or to control internal relations. (STRATE VA-1 CONTRACTORS, 520 U.S. 438, 459 (1997) (quoting MONTANA V. UNITED STATES, 450 U.S. 544, 564 (1980)))

182. FCC Commissioner Kevin J. Martin filed a dissenting statement, asserting that the FCC does not have the experience, skill, or authority to make decisions involving state and tribal jurisdictional claims. He states that "While Indian tribes may have legitimate claims of sovereignty in these situations, both they and the States deserve a better forum than this one to resolve their claims. I am convinced that the parties would be far better served by resolving such claims in the courts … (Dissenting Statement of Commissioner Kevin J. Martin, FCC 01-284, page 2).

APPENDIX B

Selected Federal Programs Addressing Broadband Access

Federal Agency	Description of Program
Federal Communications Commission	Manages several universal service fund programs that assist in broadband deployment: 1. *Rural Health Care Program*—funds broadband access for rural health care centers; 2. *E-rate Program*—provides grants for broadband to schools and libraries; 3. *High Cost Program*—does not explicitly fund broadband infrastructure, but subsidies can be used to upgrade existing telephone networks.
Department of Agriculture (USDA) Rural Utilities Service (RUS)	Administers several programs addressing broadband including: 1. *Rural Telephone Loan and Loan Guarantee Program*—provides loans and loan guarantees for telephone voice service, but requires funding recipients to provide DSL broadband at a rate of at least 1 Mbps; 2. *Distance Learning and Telemedicine Loans and Grants*—provides seed money for loans and grants to rural community facilities (e.g., schools, libraries, hospitals) for advanced telecommunications systems that can provide health care and educational benefits to rural areas; 3. *Rural Broadband Access Loan and Loan Guarantee Program*—provides loans and loan guarantees for facilities and equipment providing broadband service in rural communities; 4. *Community Connect Broadband Grants*—provides grants to applicants proposing to provide broadband service on a "community-oriented connectivity" basis to rural communities of fewer than 20,000 inhabitants.
Department of Commerce National Telecommunications Information Administration (NTIA)	Manages several programs and projects addressing broadband including: 1. *Broadband Technology Opportunities Program*—provides grants to service providers to increase access and adoption of broadband infrastructure and services; 2. *Public Telecommunications Facilities Program*—provides grants for planning, acquiring, installing and modernizing public telecommunications facilities through its; 3. *Public Safety Interoperable Communications Grant Program*—provides funding to states and territories to

	enable and enhance public safety agencies' interoperable communications capabilities; 4. Coordinating federal rights of way for telecommunications infrastructure projects with other agencies.
Economic Development Administration	*Investments for Public Works and Economic Development Facilities*—provides grants to economically distressed areas for construction of public facilities and infrastructure, including broadband deployment and other types of telecommunications enabling projects.

Department of Education Office of Elementary and Secondary Education	*Education Technology State Grants*—provides grants to state education agencies for development of information technology to improve teaching and learning in schools.
Office of Assistant Secretary for Educational Research and Improvement	*Ready to Teach Program*—provides grants to carry out a national telecommunication-based program to improve the teaching in core curriculum areas.
Office of Special Education and Rehabilitative Services	*Technology and Media Services for Individuals with Disabilities*—supports the development and application of technology and education media activities for disabled children and adults.
Department of Energy	Required to spend $4.5 billion to modernize the electric grid, which will likely include some broadband for Smart Grid. See Recovery Act, Pub. L. No. 111-5,123 Stat. 115, 133 (2009)
Environmental Protection Agency	*Exchange Network Grant Program*—provides funding to states, territories, and federally recognized Indian Tribes to support the development of an Environmental Information Exchange Network, including broadband infrastructure.
Department of Health and Human Services Health Resources and Services Administration	Administers several programs addressing broadband including: 1. *Telehealth Network Grant Program*—provides grants to develop sustainable telehealth programs and networks in rural and frontier areas, and in medically unserved areas and populations. Grantees are required to apply for the Commission's universal service funds; 2. *Telehealth Resource Center Grant Program*—provides grant funds for regional centers to assist health care providers in the development of their Telehealth services, including decisions regarding the purchase of advanced telecommunications services; 3. *Licensure Portability Grant Program*—provides grant support for state professional licensing boards to carry out programs under which the boards of various states cooperate to develop and implement State policies to reduce the statutory and regulatory barriers to telemedicine.
National Library of Medicine, National Institute of Health	*Medical Library Assistance Program*—provides funds to strengthen library and information services, facilitate access to and delivery of health science information, and plan and develop advanced information networks.
Department of Housing and Urban Development	Administers several programs addressing broadband including: 1. *Community Development Block Grants*— provides loans to deploy broadband networks and make them affordable for low to moderate income residents; 2. *Indian Community Development Grants*—funds

	broadband technology infrastructure projects.
Department of the Treasury	Distributes grants for Smart Grid investments, which includes a broadband component. See Recovery Act, Pub. L. No. 111-5, § 405, 123 Stat. 115, 144 (2009)
Department of Transportation Research and Innovative Technology Administration	*Next Generation (NG9-1-1) Initiative*—a Research and Development project that will define a system architecture for emergency communication that enables the transmission of voice, data or video from different types of communication devices to Public Safety Answering Points (PSAPs) and onto emergency responder networks. The NG9-1-1 Initiative will also develop a transition plan that considers responsibilities, costs, schedule and benefits for deploying this architecture.

National Foundation on the Arts and the Humanities Institute of Museum and Library Services, Office of Library Services	Administers several programs addressing broadband including: 1. *State Library Program*– provides grants to state library administrative agencies for promotion of library services that provide all users access to information through State, regional, and international electronic networks; 2. *Native American and Native Hawaiian Library Services*— supports library services that include linking libraries to electronic networks.
Appalachian Regional Commission	Provides project grants for Appalachian communities to support the physical infrastructure necessary for economic development and improved quality of life
Delta Regional Authority	Provides project grants to support self-sustaining economic development of eight states in the Mississippi Delta Region
Denali Commission	Provides grants through a federal and state partnership designed to provide critical infrastructure and utilities throughout Alaska, particularly in distressed communities.

* This non-comprehensive list was prepared using information provided in Congressional Research Service, *Broadband Internet Access and the Digital Divide: Federal Assistance Programs*, RL30719, Tables 1 and 2 (Mar. 19, 2009), *available at* http://assets.opencrs.com/rpts/RL30719_20090319.pdf.

** For additional information on federal agency broadband programs, *see* Interagency Questionnaire Responses, attached to Letter from Kathy D. Smith, Chief Counsel, NTIA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 09-29 (filed May 18, 2009).